

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 October 2005 (13.10.2005)

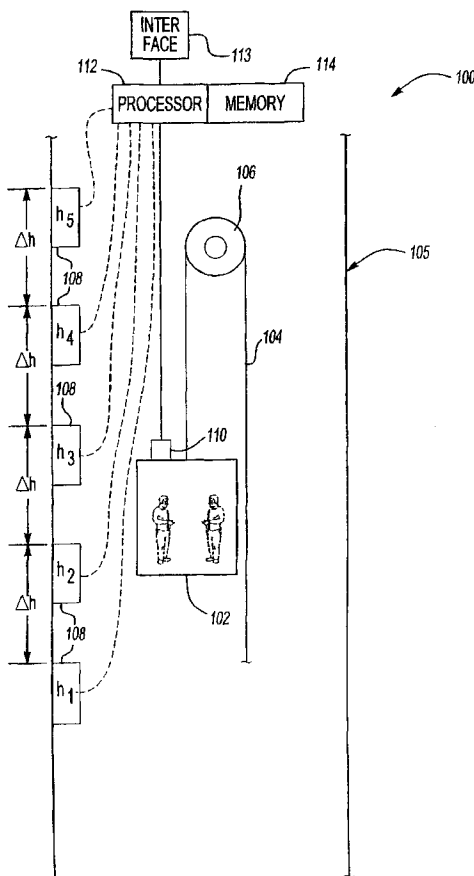
PCT

(10) International Publication Number
WO 2005/094250 A2

- (51) International Patent Classification: **Not classified**
- (74) Agent: **GASKEY, David, J.**; Carlson, Gaskey & Olds, 400 W. Maple Rd., Suite 350, Birmingham, MI 48009 (US).
- (21) International Application Number:
PCT/US2004/007903
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 16 March 2004 (16.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (*for all designated States except US*): **OTIS ELEVATOR COMPANY** [US/US]; Ten Farm Springs Road, Farmington, CT 06032 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **STUCKY, Paul, A.** [US/US]; 1038 Melbourne Avenue, Stockton, CA 95203 (US). **VERONESI, William, A.** [US/US]; 342 Fairfield Ave., Hartford, CT 06114 (US).
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,

[Continued on next page]

(54) Title: TENSILE SUPPORT STRENGTH MONITORING SYSTEM AND METHOD



(57) Abstract: A system and method monitoring the health of a support structure for an elevator based on an electrical characteristic, such as resistance, of the support structure and not the temperature of the structure. The resistance of a virgin support structure under the same temperature conditions as the support structure being monitored is calculated and subtracted from the measured resistance of the monitored support structure. The resistance value of the virgin support structure and the monitored support structure may be translated to a reference temperature to simplify calculations and monitoring of the support structure.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

Published:

— *without international search report and to be republished upon receipt of that report*